

## Case Study in Indonesia: Does the Behavior of Online Transportation Service Drivers Influence Driver Operational Performance?

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### Abstract

*This research invests the impact of ride-hailing driver behavior on the operational performance of drivers in Indonesia. Previous research in Texas, America (Idug, 2023) objectively research the preexisting impacts of a ride-hailing driver's operational performance. The research showed that there is a significant impact of the driver's intention to comply with rules to the rating, acceptance rate and declination rate of the drivers. However, based on this study, further research is required in Indonesia to determine if the same variables are also significant to the driver understanding of a companies' guideline of operation and their intentions to comply with the company's rule thorugh a random sampling of 302 respondents. General deterrence theory, understanding resource vulnerability of information, protection motivation and intention to comply do not affect the rating, indicating bias in ratings, drivers acceptance affected by intention to comply and significant influence between protection motivation and cancellation rate, despite the drivers have an understanding of data vulnerabilities, fear of penalties and motivated to protect themselves it has no effect on how many orders they complete, Drivers tend to cancel the order to protect themselves. The result of this research have some unique findings on the ride-hailing operation dynamics in Indonesia, the relationship between drivers, rider, and system through ride-hailing platforms that have much insight for ride-hailing company management to be applied for performance improvement.*

**Keywords:** *General Deterrence Theory, Understanding Resource Vulnerability, Protection Motivation, Intention To Comply, Ride-Hailling, Rating, Cancellation And Acceptance Rate.*

### Introduction

Online transportation services, also known as the ride-hailing services, have experienced rapid growth worldwide, particularly in Indonesia. The Indonesian market itself had a value of 8 billion US dollars in 2022, ranking first in Southeast Asia, with the user base reaching 63.14 million in 2022 and predicted to increase to 69.68 million by 2027. The presence of online transportation services has also led to an increase in the number of driver-partners and vehicles utilized as assets for this purpose (Farrell, Greig, & Hamoudi, 2018). The number of ride-hailing drivers in Indonesia was reported to be around 4 million individuals in the year 2020 (Kumparan, 2020). The substantial figures

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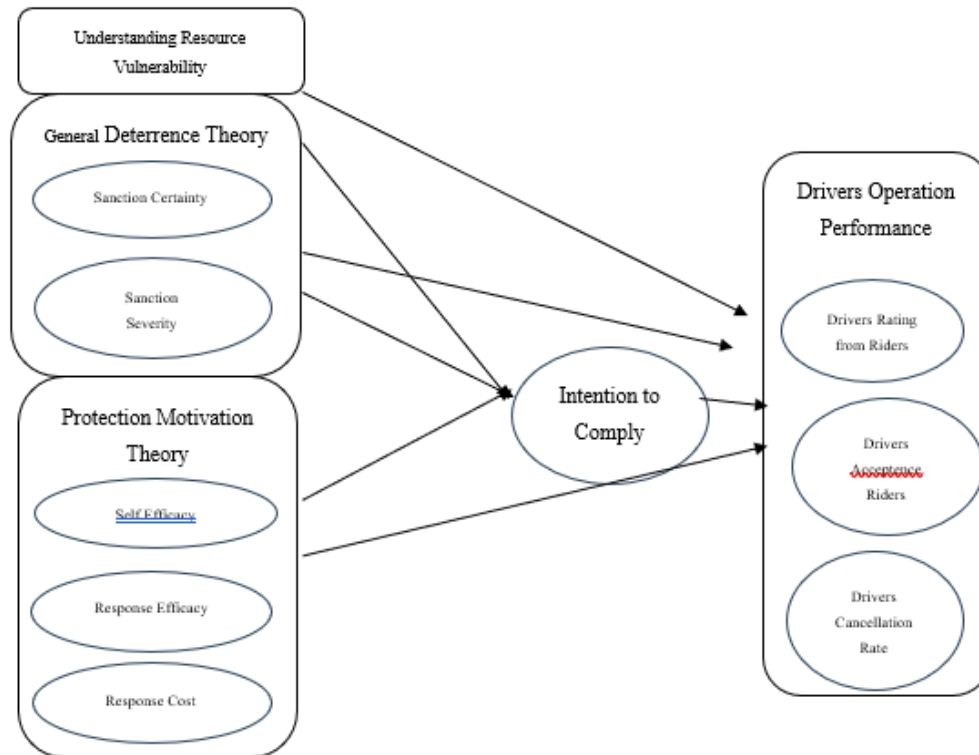
of users and drivers signify that online transportation services have become an integral part of Indonesian society.

Services provided by companies such as Grab, Gojek, and other players in Indonesia are centered around a peer-to-peer interaction system through digital channels like the internet and applications. This system provides users with the opportunity to evaluate driver performance through three assessment matrices: driver ratings, order acceptance rates, and order rejection rates after approval or acquisition (Kuhn & Maleki, 2017);(Rosenblat, 2016). The rating mechanism offers users the chance to provide instant and repetitive performance evaluations, allowing service companies to closely monitor driver performance (Rosenblat, 2016). Therefore, it is crucial to understand the behaviors influencing driver ratings, order acceptance, and order rejection in the online transportation service sector.

Behavioral understanding approaches in transportation services research often tend to focus on the consumer side. The majority of research aims to explore the reasons for user adoption of online transportation service technology (Alemi, Circella, Handy, & Mokhtarian, 2018);(Lavieri & Bhat, 2019). Other studies, such as Ta (2019), discuss how information transparency regarding driver identities enhances trust, satisfaction, and user intentions for future usage of online transportation services. Regarding user ratings in Indonesia, Mursita (2020) examined biases in the rating process itself. However, there is still limited research focusing on drivers, particularly the behaviors driving them to achieve the expected performance for the companies.

Idug et al. (2023) explain that driver performance is influenced by general deterrence, protection motivation, and intention to comply with rules. General deterrence describes an individual's reluctance to engage in illegal or undesirable behavior due to the threat of punishment or sanctions, an approach derived from criminology explaining reasons for compliance with regulations (Herath & Rao, 2009). Furthermore, protection motivation suggests that individuals tend to take actions to avoid risks that may occur to them (de Hoog et al., 2007). Both approaches focus on the threat of sanctions to enhance compliance with specific behaviors (Idug et al., 2023).

In the context of online services, it is essential to understand how the awareness of the risk of resource or data leakage in the application's data bank. Srinivar & Liang (2022) revealed that digitization efforts could pose a threat to data security, potentially leading to unauthorized access, retrieval, or hacking of an organization's confidential, personal, or sensitive information. In the Indonesian context, Hasibuan & Nasution (2023) argue that legal protection for data is still suboptimal, and data protection in the era of Big Data utilization is still vulnerable to misuse. This risk underscores the need for digital application users to be aware of the vulnerability of the data within the applications they use. This study also adopts the concept of understanding resource vulnerability as presented by (Koohang, Anderson, Nord, & Paliszkiwicz, 2020).



Bulgurcu et al. (2010) asserted that the presence of vulnerability is a consequence of employee behaviors that do not comply with Information Security Policies (ISP), resulting in exposure of information and technological resources to threats and risks. Behavior is a crucial component of information system vulnerability, where Nieves et al. (2017) explained that information system vulnerability refers to weaknesses in an information system, security procedures, internal controls, or implementations that can be exploited or triggered by threat sources. Therefore, employee compliance with organizational ISP is necessary to protect organizational assets from security threats and risks (Bulgurcu et al., 2010).

Employees who understand the vulnerability of data sources can safeguard the data under their supervision by adhering to company regulations. Compliance can be measured through behaviors that demonstrate adherence to Information Security Policies (ISP) as activities carried out by employees to ensure the protection of information security, and employees must understand these vulnerabilities to comply with regulations (Padayachee, 2012).

H1: Understanding Resource Vulnerability Significantly Influences the Rating of Online Transportation Service Drivers in Indonesia.

H2: Understanding Resource Vulnerability Significantly Influences the Acceptance Rate of Online Transportation Service Drivers in Indonesia.

H3: Understanding Resource Vulnerability Significantly Influences the Cancellation Rate of Online Transportation Service Drivers in Indonesia.

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The protection motivation theory explains that individuals' intentions and motivation for desired behavior are shaped by their assessments of threats (threat assessment) and the application of practices to cope with these threats (coping assessment) (de Hoog et al., 2007). Coping assessment involves response efficacy, self-efficacy, and response costs, where Idug et al. (2023) explained: 1) Response efficacy can be defined as the effectiveness of the suggested behavior in preventing danger. 2) Self-efficacy is the ability to implement the suggested behavior. 3) Response costs refer to the costs associated with the suggested behavior.

Good & Hyman (2020) studied protection motivation in the context of the workplace, where the presence of motivation to protect oneself influences an individual's intention to comply with company regulations. In general, if response costs are perceived as not too high and not commensurate with the sanctions that will be imposed when company regulations are not met, then the logical decision for employees is to follow and comply with those regulations.

H7: Protection Motivation Significantly Influences the Rating of Online Transportation Service Drivers in Indonesia

H8: Protection Motivation Significantly Influences the Acceptance Rate of Online Transportation Service Drivers in Indonesia

H9: Protection Motivation Significantly Influences the Cancellation Rate of Online Transportation Service Drivers in Indonesia

Intention to comply with company rules has a positive impact on the operational performance of a driver. When a driver complies with rules, it can lead to higher customer satisfaction, typically measured by star ratings, as well as an increase in the number of orders received and completed, measured by cancellation and acceptance rates. This

indicates that compliance with company rules can yield better outcomes in terms of service quality and quantity, both of which are key factors in measuring operational performance (Igud et al., 2023).

For example, a driver who consistently accepts and completes travel orders quickly and efficiently is likely to have a higher acceptance rate and lower cancellation rate. This will result in higher star ratings and more travel orders in the future. Conversely, a driver who does not comply with company rules, such as consistently canceling travel orders or providing poor service, may see a decline in performance metrics and ultimately lose access to services, reducing their income source.

H10: Intention to Comply with Rules Significantly Influences the Rating of Online Transportation Service Drivers in Indonesia

H11: Intention to Comply with Rules Significantly Influences the Acceptance Rate of Online Transportation Service Drivers in Indonesia

H12: Intention to Comply with Rules Significantly Influences the Cancellation Rate of Online Transportation Service Drivers in Indonesia

H13: Understanding Resource Vulnerability Significantly Influences Intention to Comply with Rules of Online Transportation Service Drivers in Indonesia

H14: General Deterrence Significantly Influences Intention to Comply with Rules of Online Transportation Service Drivers in Indonesia

H15: Protection Motivation Significantly Influences Intention to Comply with Rules of Online Transportation Service Drivers in Indonesia.

## **Research Method**

The population for this study comprises all online transportation service drivers in Indonesia. The determination of the sample size refers to the exposition by Hair et al. (2010), which suggests that in general, the sample in research is recommended to be no fewer than 50 and no more than 100 research respondents. The sample was selected using random sampling, where Copper & Schiendler (2014) explained that random sampling allows all members of the population to be selected as samples. Noor (2022) explained that the random sampling method has advantages in a population that tends to be homogeneous, and this method was chosen to avoid bias in sample selection and ensure that the sample represents the entire population.

This study utilized 302 randomly selected samples, where the questionnaire was distributed online using Google Forms and independently filled out by respondents. Google Forms was chosen to facilitate respondents in completing the questionnaire. The online distribution of the questionnaire allowed it to reach respondents in areas inaccessible to the researcher. The questionnaire in this study adopts the questionnaire from (Idug, Niranjan, Manuj, Gligor, & Ogden, 2023). The adopted questionnaire has the variables of general deterrence and protection motivation as independent variables, Intention to comply with rules as a mediating variable, and driver ratings, order acceptance ratio, and order cancellation ratio by drivers as dependent variables. This

study also adds an understanding of resource limitations as an independent variable, adopted from the research by (Koohang et al., 2020).

Independent variable was measured on a scale of 1-7. The selection of the 1-7 scale was based on Taheerdoost's (2019) explanation that the 1-7 scale is generally well understood by humans and, reflectively, can better capture respondents' feelings compared to the 1-5 scale but is also more understandable than scales above 7. Furthermore, the dependent variable was measured based on actual data available on drivers' accounts regarding driver ratings, order acceptance ratios, and order cancellation ratios by drivers.

The questionnaire presented by Idug et al. (2023) separated the general deterrence variable into two dimensions and protection motivation into three dimensions—these dimensions were treated as variables in the study. However, this study decided to combine these dimensions into their respective parent variables. This decision was made to avoid correlations between each dimension presented. Lind (2018) stated that inter-variable correlations can introduce bias into hypothesis testing. For instance, Gumasing (2022) mentioned that self-efficacy and response costs would influence response efficacy, where all three variables are dimensions of protection motivation as outlined by (Idug et al., 2023). In the context of the present study, if drivers perceive that the steps required to maintain their performance tend to consume time and incur costs, this perception could potentially influence their awareness to enhance responses in their efforts to be good drivers.

Validity can be understood as the criteria used to test the extent to which the measurement tool in research can accurately assess the intended object (Copper & Schiendler, 2014). Validity testing can be conducted by performing the Karl-Pearson Product Moment test, with a significance level of 0.05. If the calculated  $r >$  tabular  $r$ , the statement is considered valid, whereas if the calculated  $r <$  tabular  $r$ , the statement is considered not valid. If there are items that do not meet the validity criteria, the researcher is advised to reconsider including those items in the subsequent process and delve into why the items became invalid.

Reliability is conducted to test the consistency of the questionnaire or measurement tool in explaining the constructs under investigation in the research. Hair et al. (2010) mentioned that reliability testing can be done using Cronbach's Alpha, where a questionnaire is considered reliable if it shows a value exceeding 0.8. However, Taherdoost (2016) stated that questionnaires with reliability values exceeding 0.6 are still acceptable in the context of reliability measurement.

Taherdoost (2016) detailed reliability measurement standards as follows: a) If the Cronbach's Alpha coefficient value on the questionnaire ranges from 0.8 to 1, it can be concluded that the questionnaire has good reliability. b) If the Cronbach's Alpha coefficient value on the questionnaire ranges from 0.6 to 0.79, the questionnaire can still be accepted in terms of reliability. c) However, if the Cronbach's Alpha coefficient value on the questionnaire is less than 0.6, the questionnaire is considered unacceptable in reliability measurement.

Hypothesis testing in this study was conducted using multiple linear regression analysis using SPSS software. Schiendler (2019) explained that the use of multiple linear regression aims to assess the extent to which the independent variable influences the dependent variable, where the results of the regression analysis can measure the extent of improvement in the dependent variable if there is an increase in the independent variable. Criteria for interpreting the results of multiple linear regression tests are also presented as follows: a) If Beta has a positive value, it can be said that the independent variable in the study has a positive effect on the dependent variable. However, if the t-value is negative, it can be stated that the independent variable has a negative effect on the dependent variable. b) If Beta and the significance level are  $< 0.05$ , it can be said that the independent variable in the study has a significant effect on the dependent variable (Schiendler, 2019).

## Result and Discussion

### Validity and Reliability

Validity test results were conducted by comparing the calculated  $r$  and the tabular  $r$ . The tabular  $r$  value in this study is 0.113, obtained from a degree of freedom of 300 and an alpha value of 0.05 (two-tailed test). The validity test results are presented in Table 1:

**Table 1. Validity Test Results**

Item	Pearson	Desc.	Item	Pearson	Desc.
UR1	0,771	Valid	PM4	0,183	Valid
UR2	0,828	Valid	PM5	0,135	Valid
UR3	0,797	Valid	PM6	0,074	Invalid
GD1	0,579	Valid	PM7	0,217	Valid
GD2	0,585	Valid	PM8	0,275	Valid
GD3	0,339	Valid	PM9	0,103	Invalid
GD4	0,724	Valid	IC1	0,926	Valid
GD5	0,759	Valid	IC2	0,938	Valid
GD6	0,744	Valid	IC3	0,847	Valid
PM1	0,697	Valid	UR: <i>Understanding Resource Vulnerability</i>		
PM2	0,768	Valid	GD: <i>General Deterrence</i>		
PM3	0,758	Valid	PM: <i>Protection Motivation</i>		
			IC: <i>Intention to Comply</i>		
			R-Table: 0,113		

**Source:** Processed by Researchers (2023)

The validity test results presented in Table 4.1 indicate that there are two items from the self-protection motivation variable that are not valid. These items are: a) I understand how to comply with business regulations and rules (PM6). b) Complying with the existing company regulations will result in a high rating from customers (PM9). Invalid validity testing results indicate that the items do not represent the variable intended to be measured. The researcher suspects that item PM6 does not directly reflect the motivation to self-protect but is more suitable for representing the driver's understanding of the company's established rules. Item PM9 is suspected to have been described by item PM7 "If I comply with company regulations, I will get a better rating,"

causing confusion in respondents' answers. Therefore, the study decided to exclude items PM6 and PM9 from further measurements.

**Table 2. Descriptive Statistics and Reliability Test Results**

Variable	Mean Item	Mean Variable	Variable	Mean Item	Mean Variable
<b>Understanding Resource Vulnerability</b>			<b>Intention to Comply</b>		
UR1	4,560	4,487	IC1	6,328	6,411
UR2	4,480		IC2	6,354	
UR3	4,421		IC3	6,550	
<b>General Deterrence</b>			<b>Driver Performance</b>		
GD1	5,493	5,530	rating: <b>4,97</b>		
GD2	5,450		acceptance Rate: <b>13,69</b>		
GD3	5,500		cancellation rate: <b>1,34</b>		
GD4	5,543		<b>Cronbach's Alpha:</b>		
GD5	5,642		Understanding Resource Vulnerability <b>0,716</b>		
GD6	5,553		General Deterrence <b>0,702</b>		
<b>Protection Motivation</b>			Protection Motivation <b>0,607</b>		
PM1	2,507	3,964	Intention to Comply <b>0,888</b>		
PM2	2,351				
PM3	2,351				
PM4	6,106				
PM5	6,192				
PM6	4,086				
PM7	4,152				

**Source:** Processed by Researchers (2023)

Descriptive statistics in Table 2 indicate that the driver's performance in terms of ratings can be considered very high because the average value is close to 5. Based on this data, a preliminary conclusion can be drawn that drivers receive good ratings from customers. On average, drivers also take orders nearly 14 times a day, and the number of order cancellations is around an average of 1.34, which is considered low. Furthermore, reliability is measured using Cronbach's Alpha, as outlined by Taheerdoost (2016), where a Cronbach's Alpha value above 0.6 is considered to meet reliability assumptions. The reliability test results presented in Table 2 show that all variables can be considered reliable because all variables have Cronbach's Alpha values > 0.6.

### Hypothesis Testing

Hypothesis testing was conducted using the multiple regression analysis method and carried out in three stages: analyzing the direct influence of independent variables on dependent variables, analyzing the direct influence of independent variables on mediating variables, and analyzing the direct influence of independent variables on dependent variables by including mediating variables. Results of hypothesis testing are summarized as follows:



**Table 3. Regression Table**

Predictor	Outcome	B	Std.B	$\beta$	R <sup>2</sup>	Adj. R <sup>2</sup>
Resource Vulnerability	Intention to Comply	0.110	0.045	0.130*	0.518	0.268
General Deterrence		0.148	0.030	0.265*		
Protection Motivation		-0.151	0.023	-0.339*		
Resource Vulnerability	Rating	0.001	0.006	0.015	0.009	0.001
General Deterrence		-0.003	0.004	-0.050		
Protection Motivation		0.004	0.003	0.077		
Resource Vulnerability	Acceptance Rate	-0.065	0.099	-0.041	0.016	0.006
General Deterrence		0.105	0.065	0.099		
Protection Motivation		0.084	0.050	0.100		
Resource Vulnerability	Cancellation Rate	-0.045	0.042	-0.065	0.033	0.023
General Deterrence		0.021	0.028	0.047		
Protection Motivation		0.062	0.021	0.170*		
Intention to Comply	Rating	-0.008	0.007	-0.070	0.005	0.002
	Accept Rate	-0.332	0.108	-0.175*	0.031	0.028
	Cancellation Rate	-0.191	0.046	-0.235*	0.055	0.052

**Note:** \* significant at the 0.05 level (two-tailed)

**Source:** Processed by Researchers (2023)

The research results indicate that the independent variables understanding resource vulnerability and general deterrence do not have a significant impact on rating, acceptance rate, and cancellation rate. The protection motivation variable does not have a significant impact on rating and acceptance rate but has a significant impact on the cancellation rate. Furthermore, the intention to comply variable plays a role as an independent variable in its interaction with rating, acceptance rate, and cancellation rate. The research results show that intention to comply significantly influences acceptance rate and cancellation rate but does not significantly impact the rating. Furthermore, the intention to comply variable also acts as a dependent variable in its interaction with understanding resource vulnerability, general deterrence, and protection motivation theory. Based on the hypothesis testing results, all independent variables, namely understanding resource vulnerability, general deterrence, and protection motivation theory, have a significant impact on intention to comply.

### **Analysis of Hypothesis Results**

#### ***Influence of Understanding Resource Vulnerability on Intention to Comply with Rules and Drivers Operational Performance***

Based on hypothesis results, understanding resource vulnerability does not have direct influence on rating, acceptance rate and cancellation rate. However, understanding resource vulnerability does have direct influence on intention to comply which are similar with findings from (Koochang et al., 2020). Based on these findings, it could be concluded that although drivers understand the vulnerability of the resources – it does not influence their performance based on all three measurements calculated above (rating, acceptance rate and cancellation rate).

At the other hands, drivers understanding of resource vulnerability positively influence their intention to comply with rules or guidelines – which could mean that their understanding leads them to avoid any risks regarding of the resources through their obedience with the rules. Users of online transportation services have rights to decide what ratings they are willing to give to the drivers after they received the services, or even to not provide rating at all. Thus, users will provide ratings based on the service quality they receive during the ride with online drivers (Kurniawan & Putritama, 2020).

How service providers protect the data resources are part of service that should be mandatory and not a part of direct services – thus are not become the part of quality customer measured before provides their ratings. Furthermore, acceptance rate and cancellation rate are based on driver's decision to accept or cancel the order that they receive from the users. Their decision will affect their income – for example when drivers decide to accept more orders they will achieve bonus pay easier than their peers.

#### ***Influence of General Deterrence on Intention to Comply with Rules and Drivers Operational Performance***

General deterrence is related to how drivers perceive sanctions based on sanctions severity and certainty. Hence, general deterrence directly influence intention to comply with the guidelines since drivers perceive the sanctions would be certain and severe. According to Suherman (2023), drivers would be willing to comply with the rules and guidelines because the sanctions they will receive will be automatically given if the system address misconduct on their behavior (thus the sanctions are certain) and the sanctions would be severe for their income, whether in forms of 'shadow-banning' (mechanism where drivers found users harder than their peers because the system listed their account into 'special' account with risks to harm users satisfaction) or directly deactivate drivers account, resulted in them not being able to take orders.

At the other hands, general deterrence does not influence driver's operational performance. This shows that drivers might perceive the sanctions directly from the company would be harsher than 'soft-sanctions' from the customers such as low ratings in their account. Their perception on sanctions also does not influence both acceptance rate and cancellation rate because according to data collected from participants – drivers have high level of acceptance rate (13,69 order per day) and low level of cancellation rate (1,34) – which both of those level is inherently safe from sanctions that might stemmed from operational performance. For example, drivers would not receive any sanctions if they only cancel 1-2 order per day – since these rate of cancellation would be considered as force majeure by the system. However, drivers maintain both of these numbers because they want to gain more income – not because they feared the sanctions.

#### ***Influence of Protection Motivation on Intention to Comply with Rules and Drivers Operational Performance***

Protection motivation related with how individuals' intentions and motivation for desired behavior are shaped by their assessments of threats (threat assessment) and the application of practices to cope with these threats (de Hoog et al., 2007). In terms of hypothesis of this research, protection motivation does directly influence intention with

comply with rules and cancellation rate, but has no significant influence on ratings and acceptance rate.

First, it could be concluded that protection motivation has influence to intention to comply because drivers perceive that response costs are perceived as not too high and not commensurate with the sanctions that will be imposed when company regulations are not met. This argument is similar with explanations from Good & Hyman (2020), which stated that if response costs are perceived as low and impact from the sanctions are high, then the logical decision for employees is to follow and comply with those regulations. At the other hands, protection motivation does not influence rating and acceptance rate. This might occur because the efforts to gain ratings and acceptance rate are not directly calculated as response costs or efficacy, but rather than the usual cost they should allocate in order to work.

However, protection motivation does directly influence cancellation rate. Drivers might cancel or not accept some orders if the costs to finish the orders are higher than the potential sanctions they will receive or the opportunity lost because they do not accomplish more order. For example, drivers might cancel order during heavy rainfall, which not only impractical but also posed severe risks (such as accident or broken vehicle) that will cost more than the sanctions they might receive or the income they will gain from the order itself. Since the system has the cancellation-tolerance ratio (measurement in which level drivers could cancel order without put their account on any potential sanctions), drivers might cancel order during special cause and not harm their account at all.

### ***Influence of Intention to Comply with Rules on Drivers Operational Performance***

Intention to comply directly influence two measures of driver's operational performance (acceptance rate and cancellation rate) but does not influence rating. This results shows that driver's intention and actual actions to comply with rules might be the base standards expected by users – thus not influence user decision to provide good ratings. However, if drivers fail to comply with rules – customers will directly provide bad ratings because drivers are failed to met their minimum expected standards. In this research's case, this might does not occur to participants because participants have significantly high level of average rating (4,97 per 5) thus meaning that participants might rarely receive bad ratings from users.

At the other hand, intention to comply with rules does directly influence cancellaton rate by the drivers. This might occur because drivers perceive that if they accept orders when the situations are not suitable, it might lead them to break the rules or guidelines obligated by the company. For example, if drivers force themselves to accept orders when they do not have or bring proper equipments (such as raincoat or helmet), they might harm the safety precautions of users, and violate the rules and guidelines which stated that they must bring proper equipments when taking orders. Since drivers are willing to comply with rules, they might choose to cancel the order and prepare for the equipments first before starting to take more orders. In another case, if the traffic jam is

significantly higher than the usual – drivers might cancel the order because they do not want to violate traffic rules to reduce the time consumed.

### **Discussion of Research Results**

The research results indicate that both general deterrence, understanding of resource vulnerability, protection motivation, and intention to comply do not have an impact on rating. However, the average rating of drivers in the online transportation service is very high – with an average rating in this study recorded at 4.97 out of 5. Both findings indicate that drivers are likely to receive high ratings regardless of the quality of service they provide to users of online transportation services.

The rating system in Indonesia's online transportation services has long been criticized due to various systemic loopholes that harm both drivers and users. Low ratings from users can directly harm drivers, ranging from a decrease in driver ratings, more difficult to collect points needed to qualify for bonuses, to unilateral termination of partnerships by the application provider. This issue has led to various horizontal conflicts between drivers and customers, where many users who give low ratings complain about individual or group harassment. The fear of conflicts or harassment makes users reluctant to give low ratings, regardless of how poor the service they receive is.

The extreme responses from some drivers are inseparable from their dependence on ratings, where Maestri (2014) explains that in such a mechanism, poor performance will directly result in the termination of partnership. Some drivers may consider that a low rating will directly threaten their livelihoods – thus triggering extreme reactions as a form of self-defense or expressing frustration from the drivers. On the user's side, they are likely to share their bad experiences with online transportation service drivers with those closest to them or share them on social media. These results are consistent with Hasan's (2019) study analyzing user satisfaction sentiment about Grab Indonesia's service, showing that 8.9% of social media sentiments about the service are negative.

Furthermore, the rating system itself relies on the subjectivity of the raters to assess performance, thus not exempt from various biases (Bol, 2011). Mursita (2020) in his research examines the rater bias in the case of online transportation service drivers, revealing that the altruistic nature of service users and their understanding of driver compensation affect the creation of biases in service assessments. Giebe and Gürtler (2012) explain that altruistic behavior will make users give positive ratings regardless of the service they receive, as this happens due to the high empathy of the users. Mursita (2020) also reveals that knowledge of the compensation received by drivers makes users aware that their actions will affect the fate of the drivers, making them tend to be more 'kind' in giving ratings.

Furthermore, the acceptance rate variable is not influenced by general deterrence, understanding of resource vulnerability, and protection motivation, but is influenced by intention to comply. On the other hand, a similar situation occurs with the cancellation rate variable, where the difference in the influence of general deterrence, understanding of resource vulnerability, and protection motivation on all dependent variables is only found in the significant influence of protection motivation on the cancellation rate.

Overall, this indicates that although drivers have an understanding of data vulnerability, fear sanctions, and are motivated to protect themselves, these factors do not affect the level of order acceptance they complete.

This result suggests two hypotheses: 1) The order acceptance system in the application provides very little freedom for drivers to accept or reject orders, so whatever underlies their behavior does not affect the booking rate. 2) There may be specific variables or influences that allow the creation of an influence between independent and dependent variables in the study.

Online transportation service applications operating in Indonesia offer drivers the option to accept or reject incoming orders, with consequences that frequent order rejections will impact driver performance, the ease of obtaining bonuses, and the amount of bonuses they receive. Based on an understanding of how this application works, the first hypothesis can be considered invalidated. Furthermore, the first hypothesis may also be invalidated because there is an influence of protection motivation on the acceptance & cancellation rate, indicating that the higher a driver's intention to protect themselves, the higher the level of order acceptance or cancellation by the driver.

This is suspected to occur because drivers feel that the compensation they receive is not commensurate with the effort they exert (e.g., orders during rain or deliveries that are too far). The second hypothesis is interesting to explore because there is a significant influence of intention to comply on acceptance rate and cancellation rate, while at the same time, there is a significant influence of general deterrence, understanding of resource vulnerability, and protection motivation on intention to comply. Considering the influence of intention to comply on the dependent variable, there is a suspicion that intention to comply can influence the influence of general deterrence, understanding of resource vulnerability, and protection motivation on acceptance rate and cancellation rate. MacKinnon (2012) explain that many theories in business research propose a mediator (M) that mediates the effect of predictor variables (X) on outcome variables (Y) in a cause-and-effect sequence, so X causes M and M causes Y. Based on this explanation, this study suggests that intention to comply, influenced by all dependent variables (X), could act as a mediator between the interaction (X) and acceptance rate and cancellation rate.

## **Conclusion**

Service providers are required to understand what factors influence driver performance to create a working environment that maximizes profits and improves user satisfaction. The research results show that drivers have the intention to comply with rules, and this intention affects the acceptance and cancellation of orders they make. It is crucial for service providers to continue providing training for drivers regarding the rules applied within the company. Companies are also advised to implement clearer policies related to transportation service rules to facilitate drivers' intentions to comply with these rules.

The drivers' perceptions of data source vulnerability, general deterrence factors, and self-protection considerations are essential factors for service providers to consider. Drivers' attention to these three factors is closely tied to their expectations of receiving bonuses. Therefore, service providers need to create an attractive bonus mechanism for drivers who consistently comply with rules and establish clear and strict penalties for those who frequently violate them. Improving the bonus mechanism can also prevent drivers from being reluctant to comply with rules, as Nastiti (2018) explains that this reluctance can occur when the bonuses received do not align with their perception of the hard work they have put in. Furthermore, service providers are advised to update the rating system, which has the potential for bias and conflicts. Companies can implement a more comprehensive rating system through checks and verification in cases where drivers receive low ratings. It is also important for companies to protect consumers by modifying mechanisms that allow drivers to see the ratings given by users.

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